

The opinion in support of the decision being entered  
today is *not* binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* KATSUMI TOMIOKA

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Appeal 2007-2374  
Application 10/038,545  
Technology Center 2600

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Decided: October 10, 2007

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Before KENNETH W. HAIRSTON, HOWARD B. BLANKENSHIP, and  
ROBERT E. NAPPI, *Administrative Patent Judges*.

HAIRSTON, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellant appeals under 35 U.S.C. § 134 from a final rejection of  
claims 1 to 12. We have jurisdiction under 35 U.S.C. § 6(b).

We will sustain the rejection.

STATEMENT OF THE CASE

Appellant has invented a system and method of measuring the  
transmission line distance between each of a plurality of subscriber units and

station equipment by comparing a distance measuring control signal returned from each of the subscriber units with a reference value (Figures 1 and 2; Specification 4, 11 and 21).

Claim 1 is representative of the claims on appeal, and it reads as follows:

1. An optical subscriber system comprising: station equipment; a plurality of subscriber units; a transmission line for transmitting trailing signals from the station equipment to the plurality of subscriber units and transmitting leading signals from the plurality of subscriber units to the station equipment; and a star coupler for branching trailing signals and combining the leading signals,  
the station equipment comprising a transmission line distance monitor/processor unit which sends a distance measuring control signal to each of the subscriber units, measures, based on a distance measuring signal returned from each of the subscriber units, the transmission line distance between the station equipment and each of the subscriber units, and judges whether the transmission line distance is larger or smaller than a predetermined reference value.

The prior art relied upon by the Examiner in rejecting the claims on appeal is:

Effenberger	US 5,930,018	Jul. 27, 1999
Tochio	US 6,563,613 B1	May 13, 2003 (filed Dec. 2, 1998)

The Examiner rejected claims 1 to 12 under 35 U.S.C. § 103(a) based upon the teachings of Tochio and Effenberger.

Appellant contends that the claims on appeal explicitly require that the measured values are compared to a predetermined<sup>1</sup> reference value, whereas

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<sup>1</sup> A “reference value” is described throughout the disclosure, but a “predetermined reference value” is not mentioned in the disclosure.

all of the distances in Effenberger “are **measured**, and none of them are determined beforehand (*i.e.*, predetermined)” (Br. 7).

### ISSUE

Does the applied prior art teach or would it have suggested to the skilled artisan a comparison of a measured distance value to a predetermined reference value?

### FINDINGS OF FACT

Appellant has not challenged the Examiner’s findings that Tochio describes all of the optical subscriber system structure and steps set forth in claims 1 and 5, respectively, except for the station equipment judging “whether the transmission line distance is larger or smaller than a predetermined reference value” (Final Rejection 2).

Effenberger describes a passive optical network that determines the distance of each optical network unit (ONU) from the central optical line termination unit (OLT) (col. 2, ll. 36 to 39). The respective distances are listed “in ascending order from nearest to farthest” from the OLT (*i.e.*, the ONU distances are compared to each other) (col. 2, ll. 52 to 54). Based on the respective distances of the ONUs from the OLT, the ONUs communicate with the OLT “in ascending order of nearest to farthest” (col. 3, ll. 18 to 22).

### PRINCIPLES OF LAW

The Examiner bears the initial burden of presenting a *prima facie* case of obviousness. *In re Oetiker*, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992). If that burden is met, then the burden shifts to the Appellant to overcome the *prima facie* case with argument and/or evidence. *See Id.*

The Examiner's articulated reasoning in the rejection must possess a rational underpinning to support the legal conclusion of obviousness. *In re Kahn*, 441 F.3d 977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006).

The claims on appeal should not be confined to specific embodiments described in the specification. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1323, 75 USPQ2d 1321, 1334 (Fed. Cir. 2005) (*en banc*). During *ex parte* prosecution, claims must be interpreted as broadly as their terms reasonably allow since Applicants have the power during the administrative process to amend the claims to avoid the prior art. *In re Zletz*, 893 F.2d 319, 321-22, 13 USPQ2d 1320, 1322 (Fed. Cir. 1989).

#### ANALYSIS

The Examiner contends that a reference value in Effenberger is a previously measured ONU distance value that is used in the noted comparison with a subsequently measured ONU distance value (Final rejection 3 and 5). We agree with the Examiner's reasoning that a previously measured distance value in Effenberger becomes a reference value for a subsequently measured distance value during the ordering of the measured distance values "in ascending order from nearest to farthest" from the OLT.

The disclosed and claimed invention does not explain how and at what time a reference value becomes a "predetermined" reference value. Thus, Appellant's argument that a measured distance value is not a reference value "determined beforehand" is without merit since the claims are interpreted as broadly as their terms reasonably allow during *ex parte* prosecution (Br. 7).

### CONCLUSION OF LAW

The Examiner has established the obviousness of claims 1 and 5. The obviousness of claims 2 to 4 and 6 to 12 has been established by the Examiner because Appellant has not presented any patentability arguments for these claims apart from the arguments presented for claims 1 and 5.

### DECISION

The obviousness rejection of claims 1 to 12 is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a)(1)(iv).

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Application 10/038,545

AFFIRMED

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DICKSTEIN SHAPIRO LLP  
1177 AVENUE OF THE AMERICAS (6TH AVENUE)  
NEW YORK NY 10036-2714